



## WATER MANAGEMENT MONTHLY REPORT

### Information Exchange Bulletin

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### RESERVOIR OPERATION AND SYSTEM STATUS FOR JULY 2003

**HIGHLIGHTS** – Cairo stage began the month at 23.8 feet and ended at 26.0 feet and was falling slowly. The stage at Cairo crested at 32.2 on the 17th. Flood stage there is 40.0 feet. Excessive rainfall cause extensive flooding in the upper Wabash River basin of Indiana and the Mahoning River basin in northeastern Ohio.

**WEATHER** –The weather during July continued the cool trend of June and was generally wet. Temperatures averaged 1-3 degrees below normal as the polar front stayed further south than usual. Precipitation was typically scattered, however, very heavy showers in northern Indiana, Ohio and northwestern Pennsylvania were the result of stalled frontal boundary. Precipitation totals of 8-16 inches were observed in these areas. Western Kentucky and western Tennessee were quite dry during this month..

### TEMPERATURE AND PRECIPITATION – JULY 2003

|                  | TEMPERATURE           |                             | PRECIPITATION      |                             |
|------------------|-----------------------|-----------------------------|--------------------|-----------------------------|
| STATION          | OBSERVED<br>DEGREES F | DEPARTURE<br>FROM<br>NORMAL | OBSERVED<br>INCHES | DEPARTURE<br>FROM<br>NORMAL |
| Pittsburgh, PA   | 71.3                  | -1.3                        | 6.01               | +2.05                       |
| Charleston, WV   | 73.1                  | -0.8                        | 5.89               | +1.03                       |
| Columbus, OH     | 73.4                  | -1.7                        | 2.94               | -1.68                       |
| Cincinnati, OH   | 73.9                  | -2.4                        | 5.00               | +1.25                       |
| Louisville, KY   | 76.0                  | -2.4                        | 4.33               | +0.03                       |
| Indianapolis, IN | 74.0                  | -1.4                        | 8.01               | +3.59                       |
| Evansville, IN   | 77.1                  | -1.5                        | 4.38               | +0.63                       |
| Nashville, TN    | 78.2                  | -0.9                        | 2.87               | -0.90                       |

**STREAMFLOW** -- Ohio River monthly average flows for July ranged from a low of 183

percent of normal at Paducah, KY to a high of 255 percent of normal at Pittsburgh, PA. Daily flows ranged from a low of 60 percent of normal at Pittsburgh, PA to a high of 719 percent of normal at Pittsburgh, PA.

The following table presents the flow data summary for July at the Ohio River Index Stations:

**FLOW DATA – JULY 2003**

| STATION        | AVERAGE<br>MONTHLY FLOW<br><br>CUBIC<br>FEET/SECOND | PERCENT LONG-TERM<br>NORMAL |       |     |
|----------------|---|-----------------------------|-------|-----|
|                |   | MONTHLY                     | DAILY |     |
|                |   |                             | HIGH  | LOW |
| Pittsburgh, PA | 35,500  | 255                         | 719   | 60  |
| Huntington, WV | 85,200  | 235                         | 436   | 99  |
| Cincinnati, OH | 103,000   | 231                         | 455   | 87  |
| Louisville, KY | 127,000   | 241                         | 504   | 117 |
| Evansville, IN | 128,000   | 208                         | 376   | 66  |
| Paducah, KY    | 256,000   | 183                         | 272   | 130 |

**RESERVOIRS** -- July started with 2.2% utilization of the total system flood control storage and ended the month at 3.7%. System-wide augmentation storage started at 98.5% at the beginning of the month and was at 98.2% by the end of the month. Significant flood storage utilization in excess of 50% occurred at several projects in the Wabash and Mahoning River basins; Kirwan 87%, Berlin 77%, Mosquito Creek 66%, Roush 112% and Salamonie 75%, projects storing in excess of 25 % were Kinzua, Woodcock, Tionesta, Shenango, Harden and Cagles Mill. Kirwan and Roush were new pools of record.

The following table depicts storage change by tributary reservoir subsystem for July:

| CHANGE IN STORAGE<br>TRIBUTARY-RESERVOIR SUBSYSTEM  | (ACRE-FEET) |
|---|-------------|
| Allegheny-Monongahela-Beaver                        | +156,400    |
| Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte | +42,300     |
| Twelvepole-Big Sandy-Little Sandy-Scioto            | +200        |
| Little Miami-Licking-Mill Creek-Great Miami         | -8,800      |

|                            |                 |
|----------------------------|-----------------|
| Kentucky-Salt-Green-Wabash | +92,700         |
| Cumberland                 | -410,700        |
| <b>TOTAL</b>               | <b>-127,900</b> |

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